

Notice of Allowability

Application No.

10/780,970

Examiner

Helen O. Chu

Applicant(s)

MCLEAN, GERARD FRANCIS

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2/18/2004.
2. ☒ The allowed claim(s) is/are 1-16.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date See Continuation Sheet
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Continuation of Attachment(s) 3. Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date: 8/25/2004, 11/29/2005, 12/5/2005.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ben Armitage on November 20, 2006.

The application has been amended as follows:

Specification: Paragraph 29 and 31 delete "cathode (46 and 48)," insert "cathode (45, 46 and 48)"

Specification: Paragraph 33 delete "cathode (48)," insert "cathode (45 and 48)"

In Claim 1 Part C delete "at least one fuel cell comprising a cathode and an anode integrally disposed within the cooling fin and between the cathode and the anode is an electrolyte," insert "at least one fuel cell comprising a cathode and an anode integrally disposed within a single cooling fin and between the cathode and the anode is an electrolyte"

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In Claim 9 Part B delete "creating a channel having a first wall and a second wall in the cooling fin," insert " creating a channel having a first wall and a second wall in a single cooling fin"

In Claim 12, Part A delete "providing a heat sink assembly having a base having at least one cooling fin comprising a first side and a second side wherein the fin extends from the base," insert "providing a heat sink assembly having a base having at least one cooling fin comprising a first side and a second side within a single fin wherein the fin extends from the base"

In Claim 13 delete " the method of claim 12, wherein the membrane assembly comprises a membrane comprising:," insert "the method for making an integrated heat sink fuel cell assembly of claim 12, wherein the membrane assembly comprises:"

In Claim 14, Part C delete "at least one fuel cell comprising a cathode and an anode integrally disposed within the cooling fin, wherein the fuel cell comprises: an anode, a cathode and an electrolyte," insert "at least one fuel cell comprising a cathode and an anode integrally disposed within a single cooling fin, wherein the fuel cell comprises: an anode, a cathode and an electrolyte"

Allowable Subject Matter

2. Claims 1-16 are allowable.

The following is an examiner's statement of reasons for allowance: The closest prior art to the Applicant's claimed invention is U.S. Patent 5,470,671.

Regarding claims 1, 9, 12, and 14, the prior art fails to teach an integrated heat sink fuel cell assembly that comprises a membrane assembly with a cathode, an anode and an electrolyte integrally disposed within a single cooling fin wherein the cooling fin is extending from a base.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen O. Chu whose telephone number is (571) 272-5162. The examiner can normally be reached on Monday-Friday 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HOC


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PRIMARY EXAMINER
11/04